

Non-invasive treatment for keratoconus

Located in Cottbus, Germany, around 100 km south east of Berlin is the renowned Paulig Eye Surgery Centre. Specialising in the diagnosis and treatment of a variety of eye disease, the clinic recently acquired an Avedro Keraflex KXL system to treat keratoconus. The Keraflex® system delivers a single low energy microwave pulse that shrinks parts of the cornea outside the optical zone, and is used in conjunction with the KXL™ system which subsequently strengthens and stabilises the cornea through a procedure called cross-linking. According to Dr. Sylvia Paulig, the company's founder the procedure is completely non-invasive.

Keratoconus is a degenerative eye disease that often presents in puberty. Ludi Peschke, the clinic's office manager claims that although the underlying cause has not yet been confirmed, it is suspected to be genetic. He also claims that the American Society of Ophthalmology estimates that around 50% of all keratoconus cases result from extensive eye rubbing. "Patients who suffer from allergies can rub their eyes thin, and this results in a bulging forward of the cornea," he says. "Keratoconus is also one of the risks associated with laser treatment. The bulging of the cornea can be corrected initially with glasses and later with contact lenses. But if it is progressive it is treated with corneal transplantation which involves surgery. However, now we can treat it with the non-invasive Keraflex procedure."

According to Peschke the treatment involves initial Keraflex treatment to flatten the cone of the cornea, and subsequent cross-linking to stop the progression. "The first part of the procedure is reversible," he says. "The flattening of the cornea is a result of the collagen shrinking from the procedure. This is a temporary effect, and must be cross-linked to make it permanent. An eye that is not cross-linked will return to its original state six to twelve months after the treatment. This means that the risk is minimal for patients."

Founded in 2007 by Dr Paulig, the clinic recently moved into a new facility. Renowned for her innovation in the field of cataract surgery using the Calhoun Light Adjustable Lens®, Dr. Paulig pens numerous papers and gives presentations all around the world. "I



enjoy travelling," she says. "I like to work with doctors in foreign countries. Our clinic is in a wonderful location for foreign patients. It is close to Berlin airport, and in a historical area of Germany."

The Paulig Clinic employs 17 people, and provides services to people from all over the world, including patients from Singapore, Oman, and Kosovo. It is currently one of only three clinics in Europe able to provide Keraflex treatment, and is in the process of expanding to another, as yet undisclosed location outside Germany.



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